

# V&V Reference Report

## L2 ASCDS Version : 7.6.9

Observation 2969 - L2 Version 001  
Chandra X-Ray Center

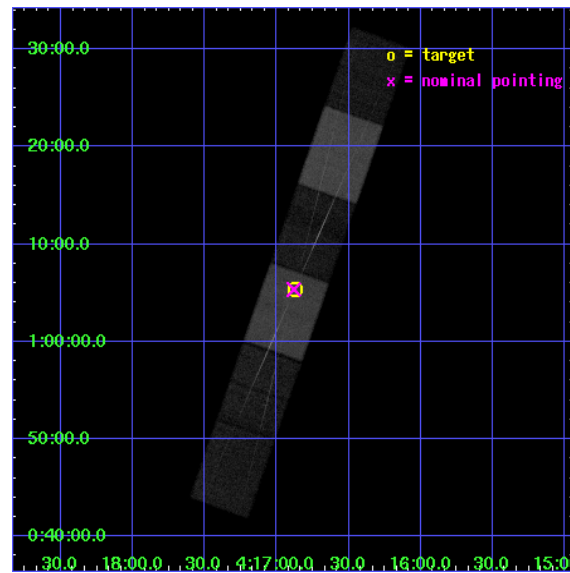
L2 Processing Date : Oct 16 2006

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# 1 Front

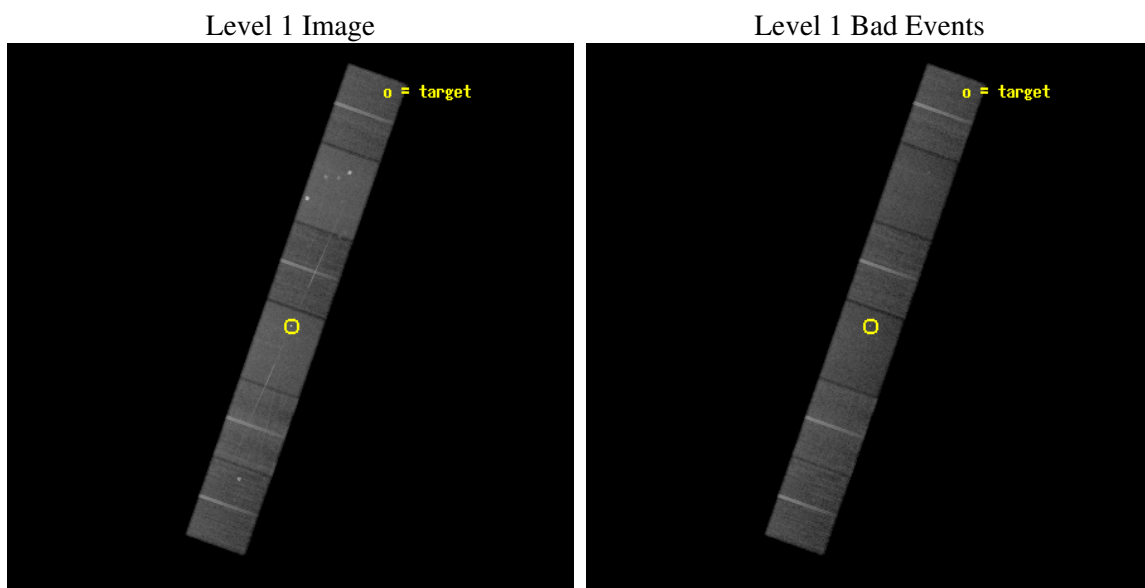
seq_num	700408
obs_id	2969
title	PROBING THE INTERGALACTIC MEDIUM AT LOW REDSHIFT
observer	Prof. Claude Canizares
object	1H 0414+009
dtcycle	0
cycle	P
ra_targ	64.218333
dec_targ	1.09
ra_nom	64.220402336512
dec_nom	1.0891731035604
roll_nom	109.26668978389
revision	2
ontime	50907.5
livetime	50085.2997198
ontime4	50907.5
ontime5	50907.5
ontime6	50907.5
ontime7	50907.5
ontime8	50907.5
ontime9	50907.5
l2events	372718



## 2 OBI

### 2.1 OBI

#### 2.1.1 Images

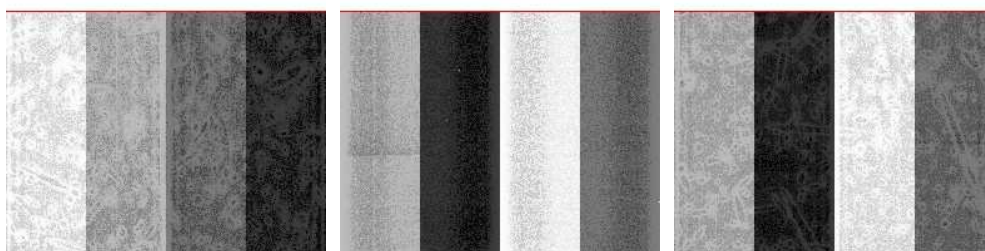


#### 2.1.2 Bias

Chip 4

Chip 5

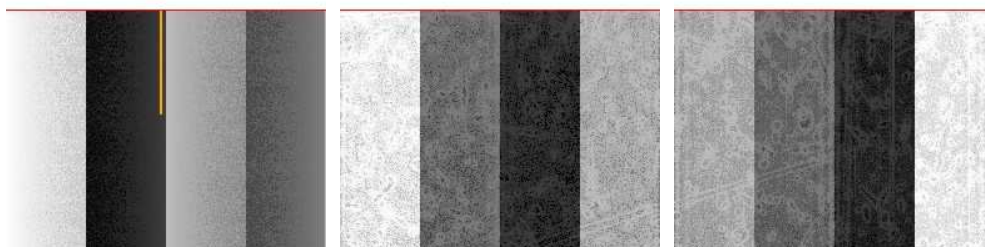
Chip 6



Chip 7

Chip 8

Chip 9



### 2.1.3 Parameters

obi_num	0
ascdsver	7.6.9
caldsver	3.2.3
date	2006-09-30T08:42:26
revision	2

sched_exp_time	50762.393000
ontime	51269.931529015
ontime4	51269.931529015
ontime5	51269.931529015
ontime6	51269.931529015
ontime7	51269.931529015
ontime8	51269.931529015
ontime9	51269.931529015
l1events	1590909

### 2.1.4 Events

	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	242385	327264	224894	296471	281896	217999
rejected events	209758	173983	190182	173180	218885	184263
rejected %	86%	53%	84%	58%	77%	84%

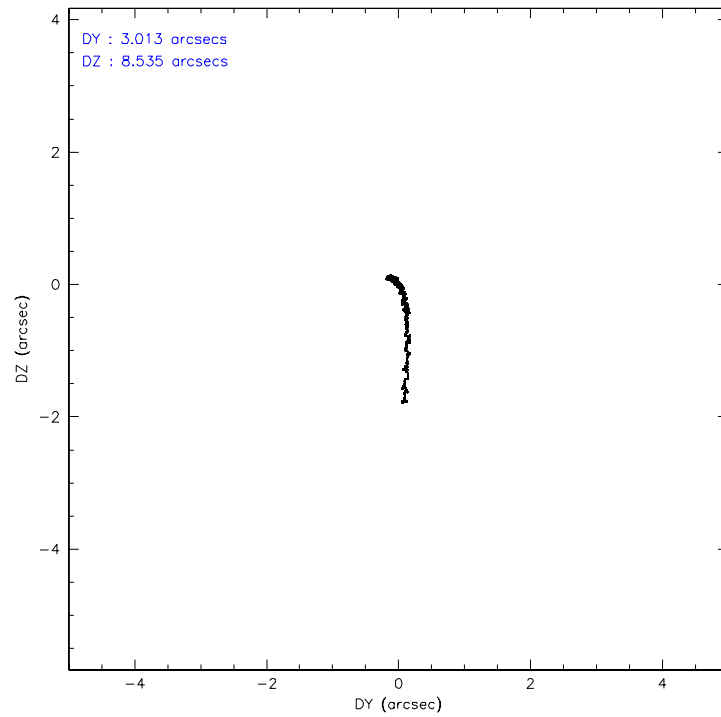
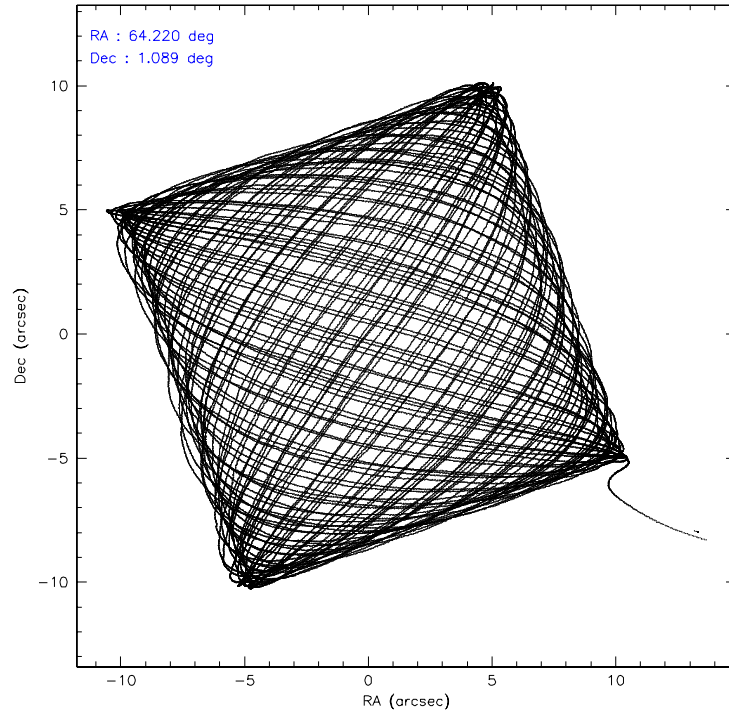
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	15497	22844	16697	9648	22359	16138
	6%	6%	7%	3%	7%	7%
grade 1 events	160	476	118	212	180	116
	0%	0%	0%	0%	0%	0%
grade 2 events	6291	44074	6251	30003	12906	5965
	2%	13%	2%	10%	4%	2%
grade 3 events	3221	4084	3094	7984	6393	3027
	1%	1%	1%	2%	2%	1%
grade 4 events	3014	3838	2938	7930	5827	2972
	1%	1%	1%	2%	2%	1%
grade 5 events	8960	15725	9341	20638	12189	9885
	3%	4%	4%	6%	4%	4%
grade 6 events	4776	79566	5907	68545	15887	5847
	1%	24%	2%	23%	5%	2%
grade 7 events	200466	156657	180548	151511	206155	174049
	82%	47%	80%	51%	73%	79%

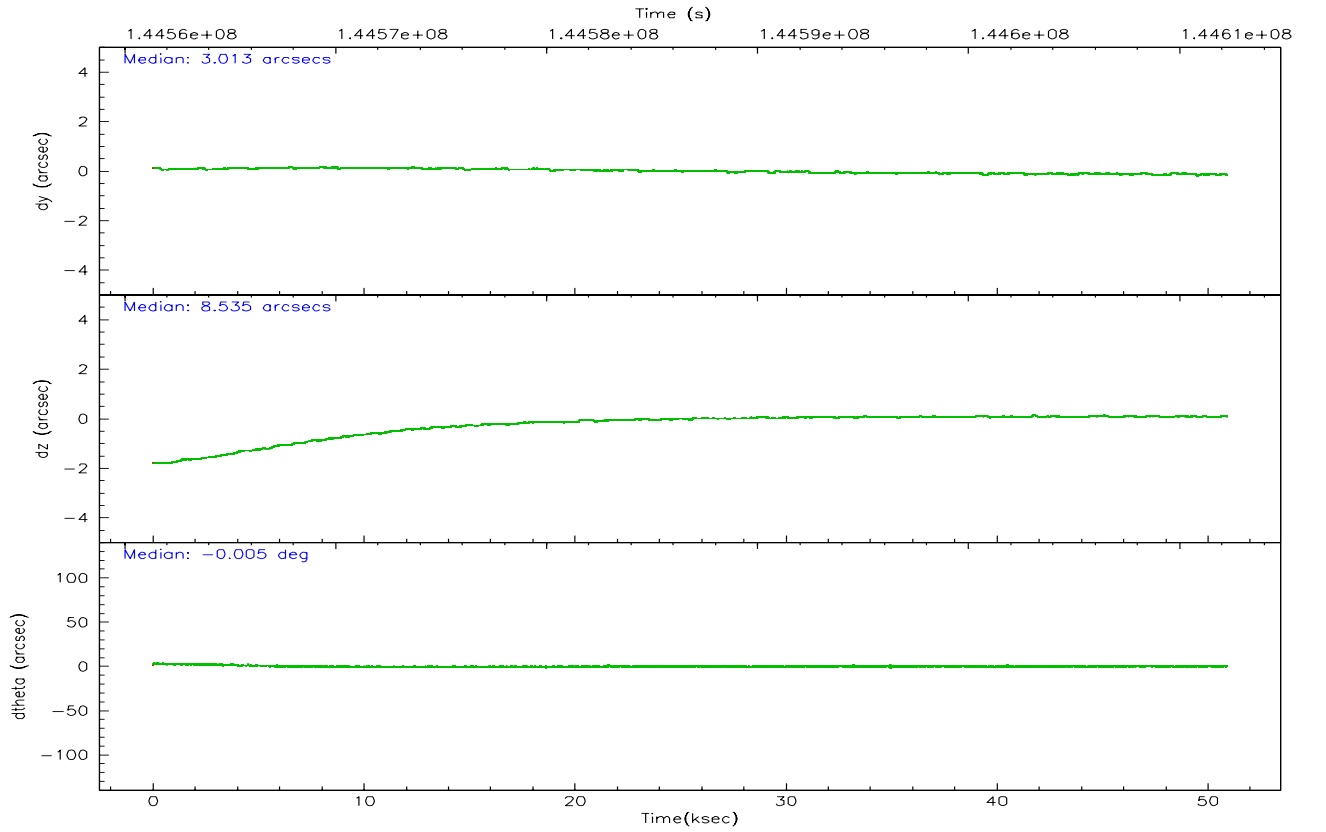
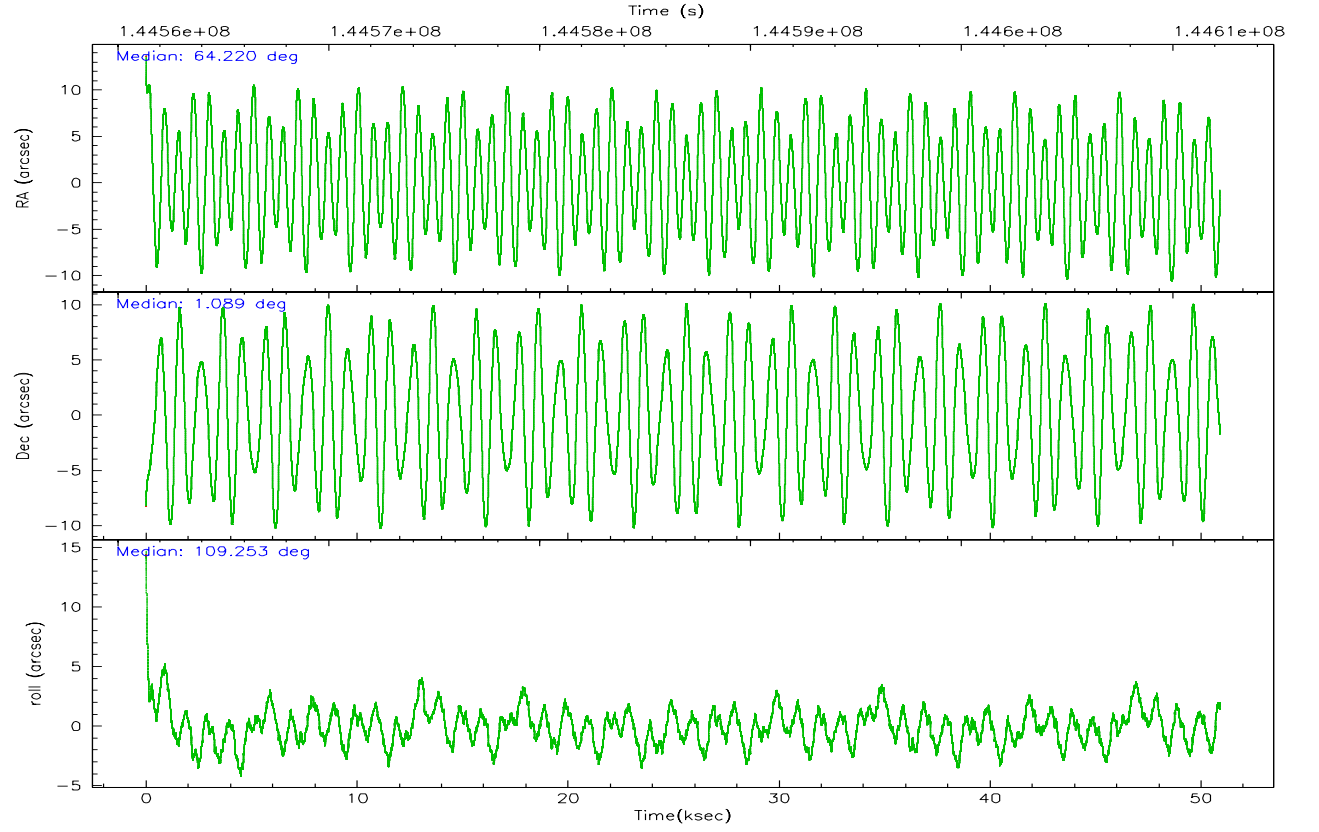


## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	6	6
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
Pointing RA	64.241267	64.22040233651218	Subarray requested	CUSTOM	CUSTOM
Pointing Dec	1.071663	1.089173103560356	Subarray start row	1	1
Pointing Roll	109.109666	109.2666897838934	Subarray row count	774	774
SIM focus pos (mm)	-0.684267	-0.6828225247311905	Alternating exposures requested	N	N
SIM defocus (mm)	0	0.001444936568705701	Primary exposure time	0.000000	2.5
SIM translation stage pos (mm)	-187.132523	-187.1254020033014			
SIM translation stage offset (mm)	-3	-3.007120579706367			
Observation start time	144561491.184000	144560361.09453			
Observation start date	2002-08-01T03:57:07	2002-08-01T03:39:21			
Observation end time	144612254.184000	144612568.44667			
Observation end date	2002-08-01T18:03:10	2002-08-01T18:09:28			
Read mode	TIMED	TIMED			

## 2.3 Aspect



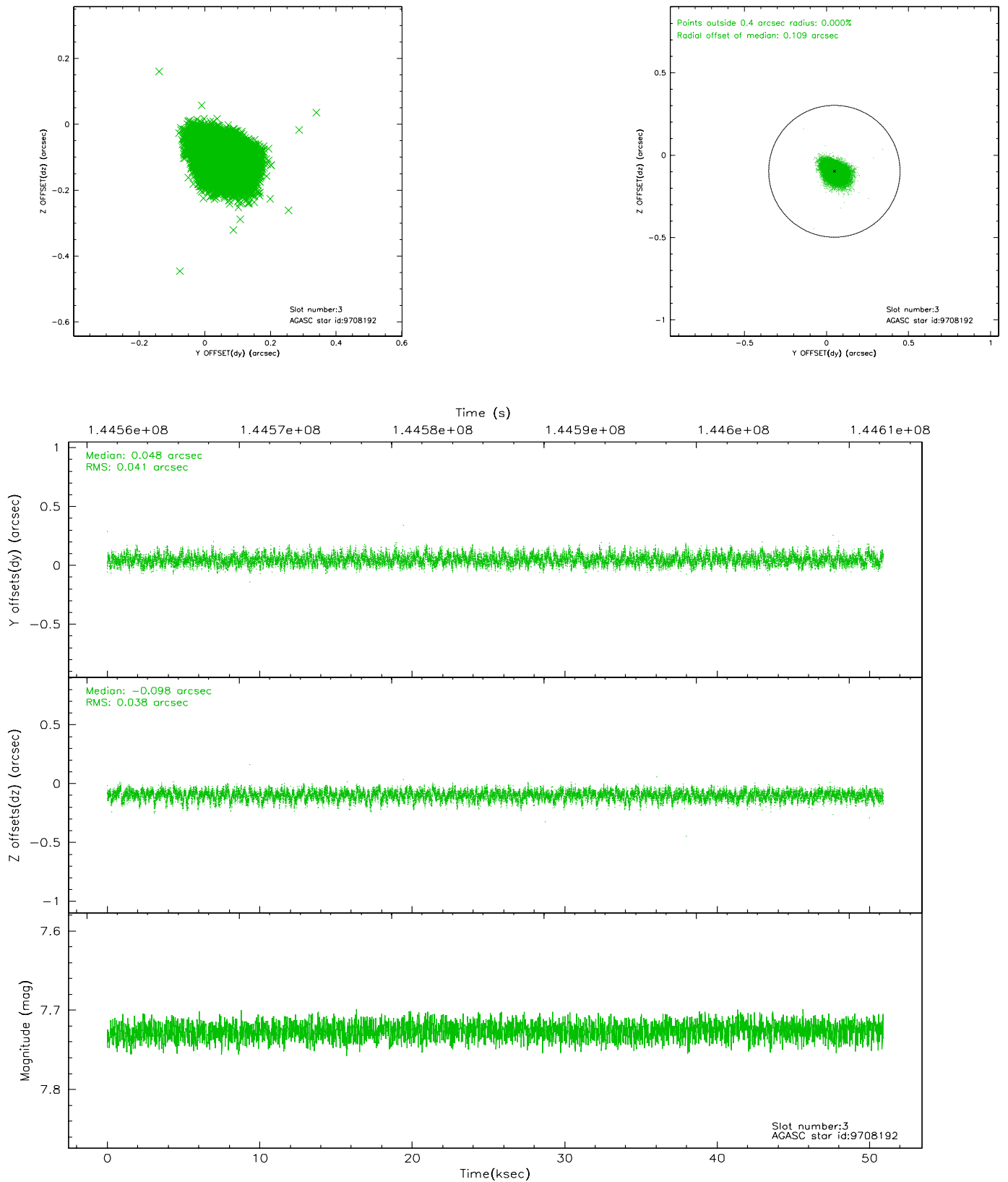


### Slot Statistics

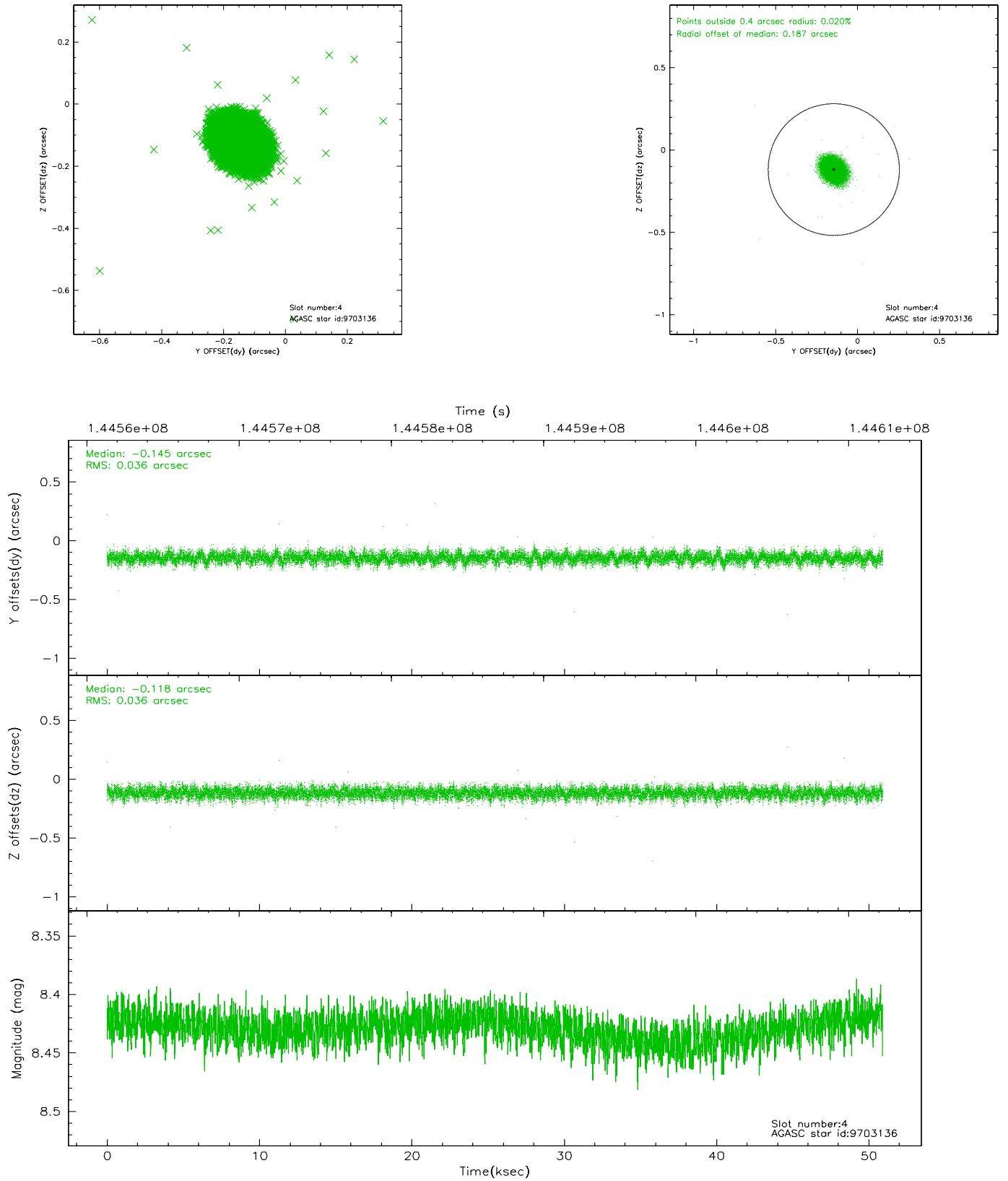
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	7.10	12417	-0.040	0.003	0.009	0.031	0.000000	0.000000	-755.45	-1791.57
1	FID	ACIS-S-4	7.20	12416	-0.029	0.019	0.011	0.019	0.000000	0.000000	2157.80	117.01
2	FID	ACIS-S-5	7.23	12416	0.038	-0.013	0.010	0.030	0.000000	0.000000	-1808.29	110.54
3	GUIDE	9708192	7.73	24832	0.048	-0.098	0.058	0.098	64.027355	0.597797	-1360.57	1285.93
4	GUIDE	9703136	8.43	24826	-0.145	-0.118	0.053	0.086	64.056984	1.240772	791.57	427.80
5	GUIDE	9700112	8.70	24833	-0.025	0.096	0.072	0.115	64.622877	1.272905	234.84	-1534.54
6	GUIDE	9709312	9.12	24827	0.102	0.148	0.082	0.130	64.499854	0.983917	-603.48	-775.87
7	GUIDE	9709912	9.27	24828	0.017	-0.023	0.081	0.131	63.953553	0.846814	-426.58	1243.66

## 2.4 Star Slots

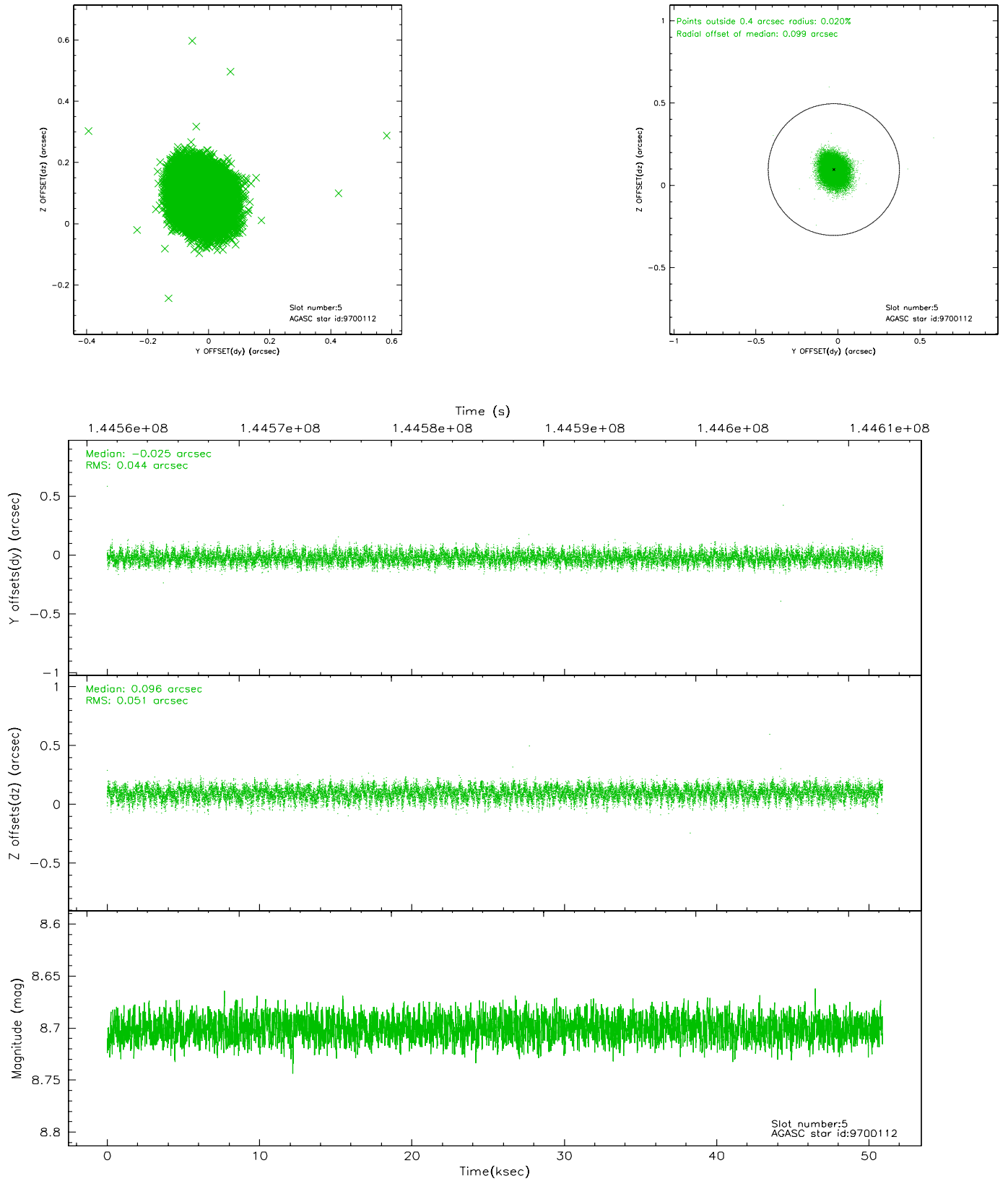
### 2.4.1 Slot 3



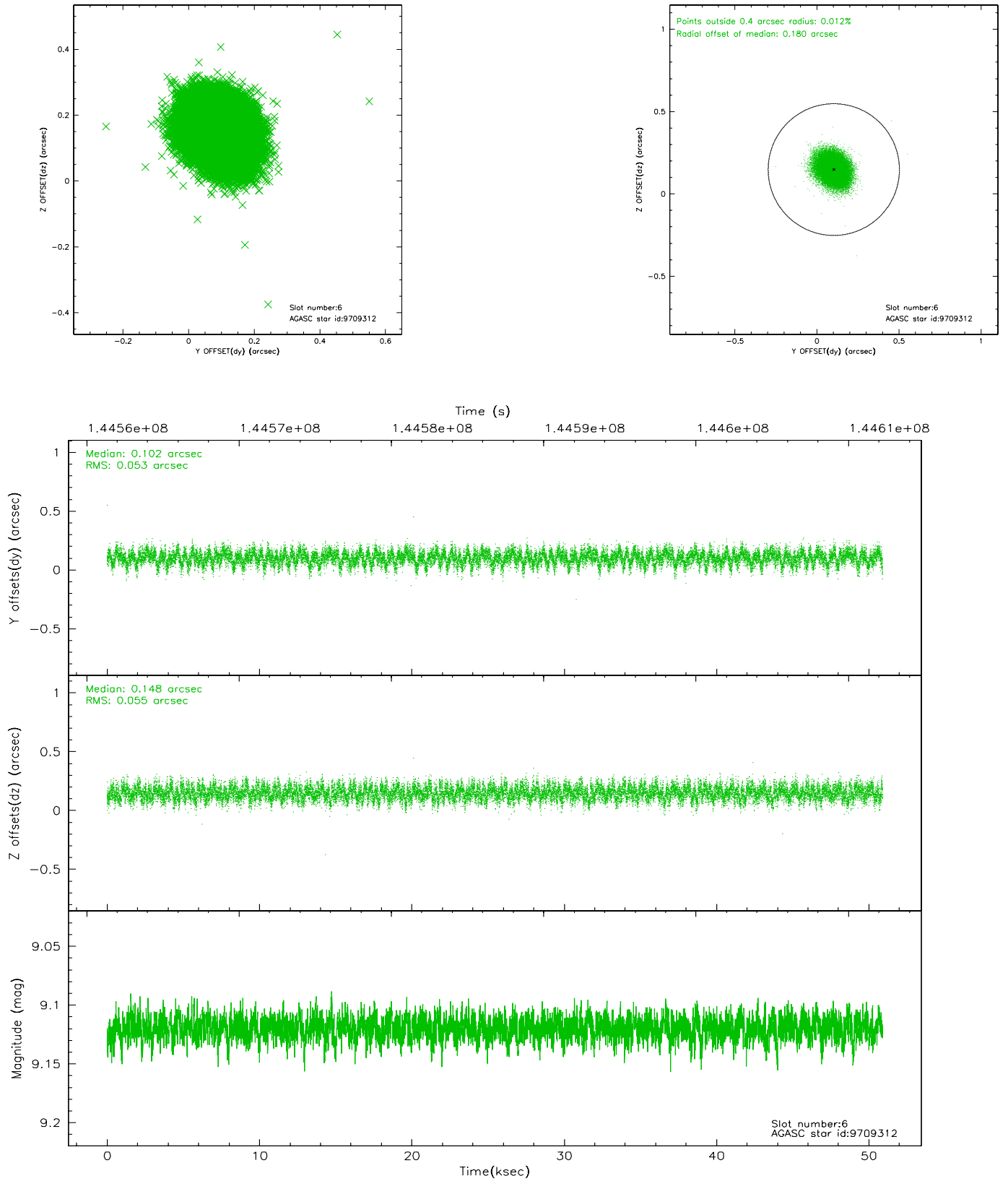
## 2.4.2 Slot 4



### 2.4.3 Slot 5

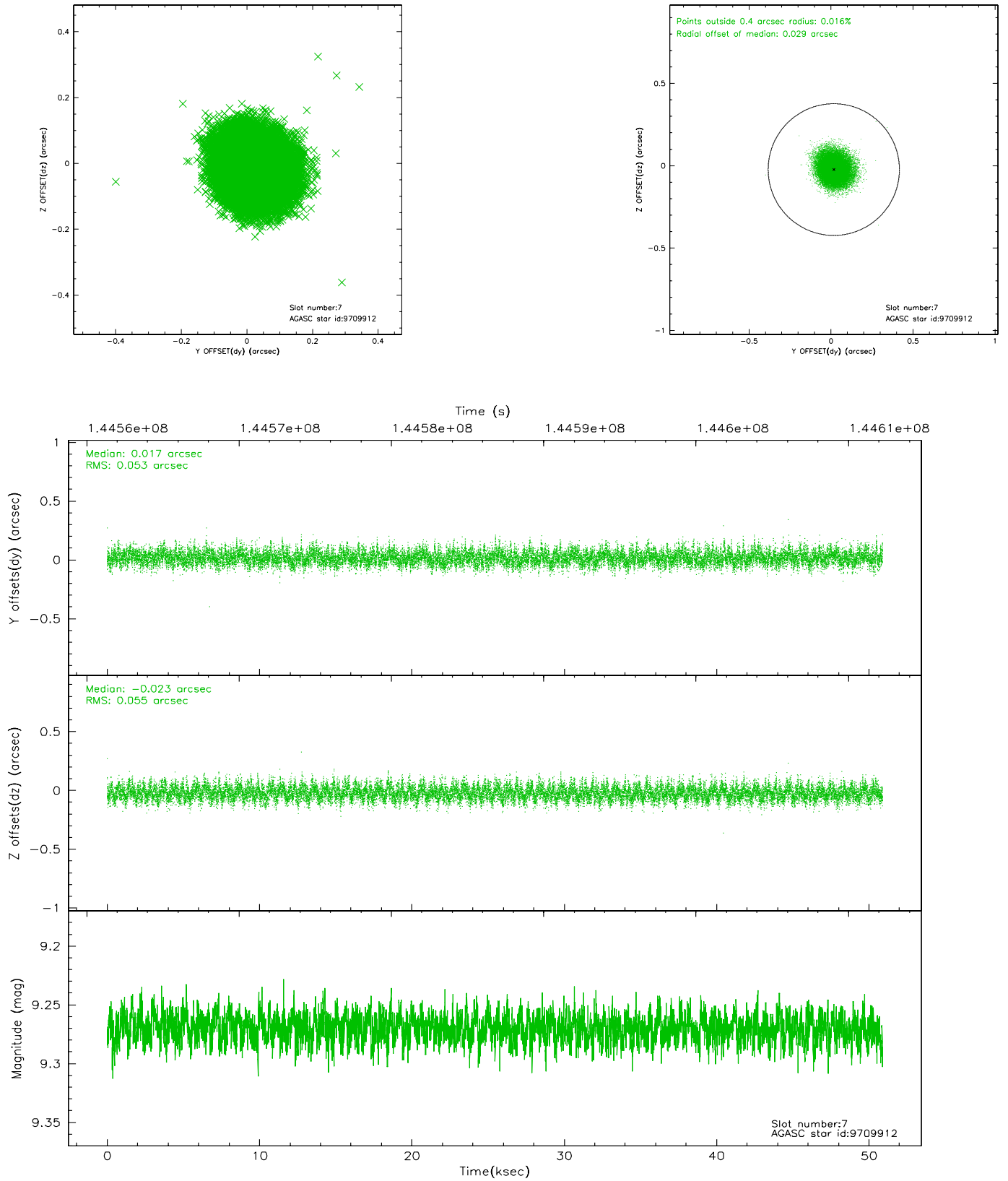


## 2.4.4 Slot 6



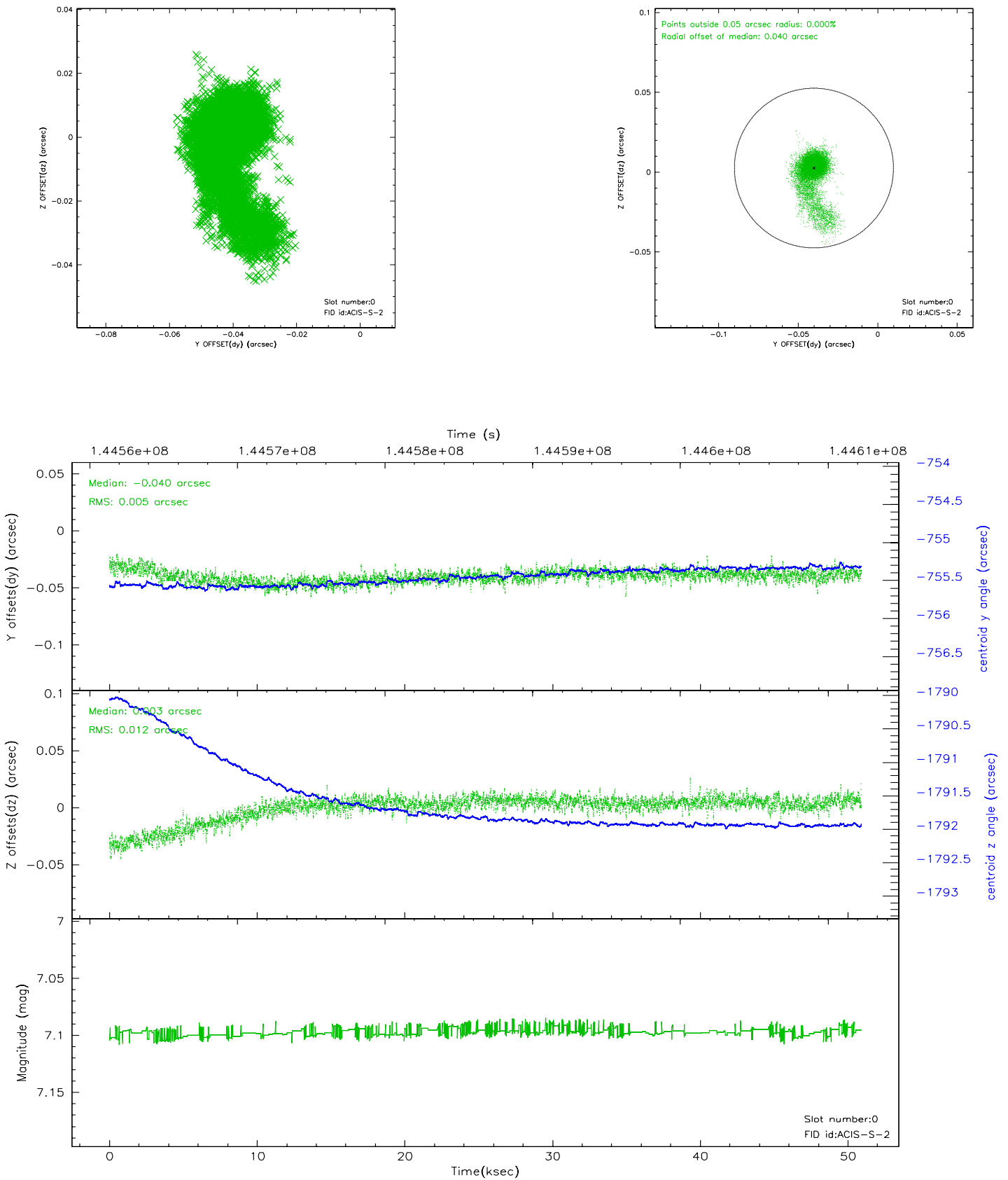


## 2.4.5 Slot 7

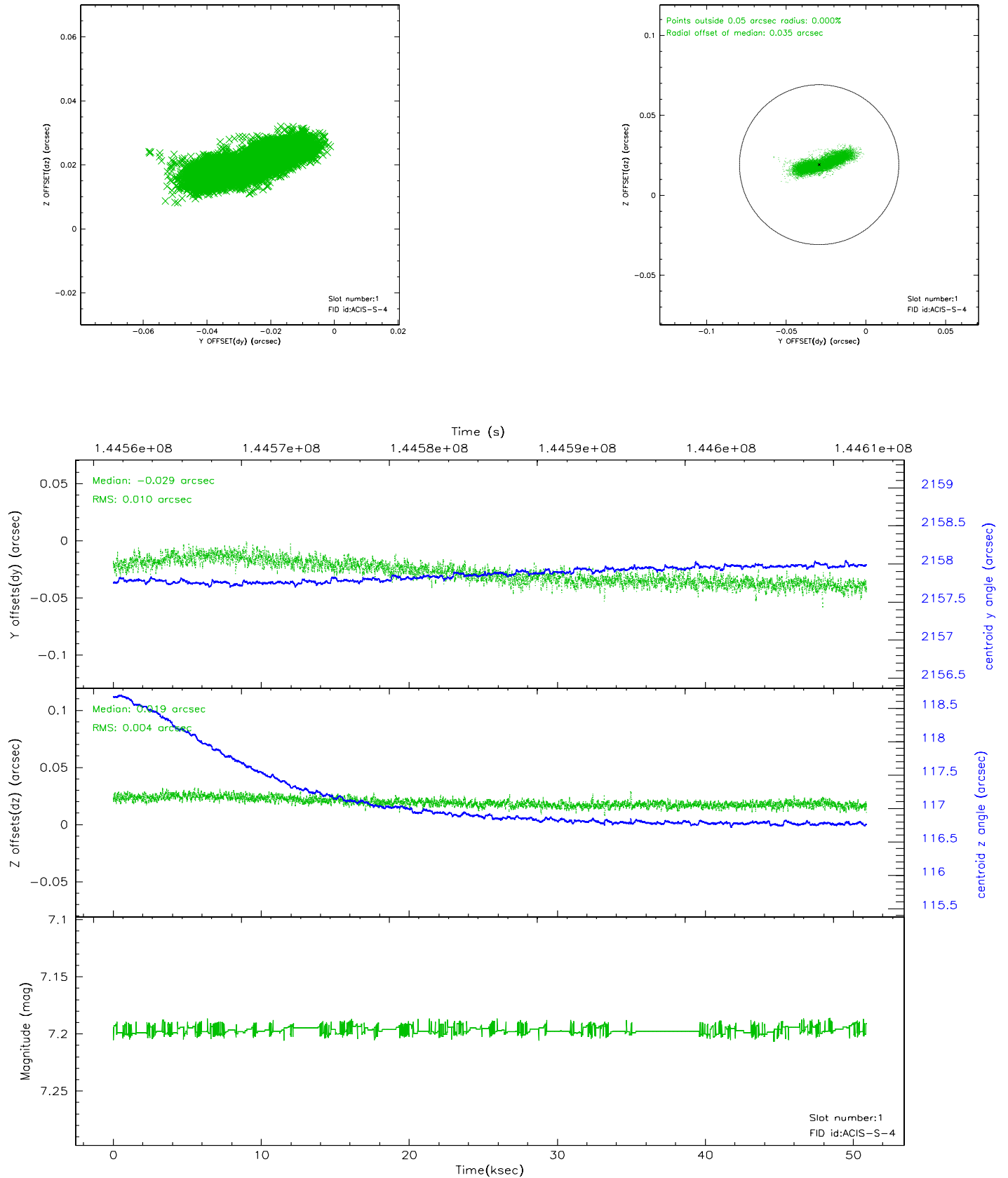


## 2.5 FID Slots

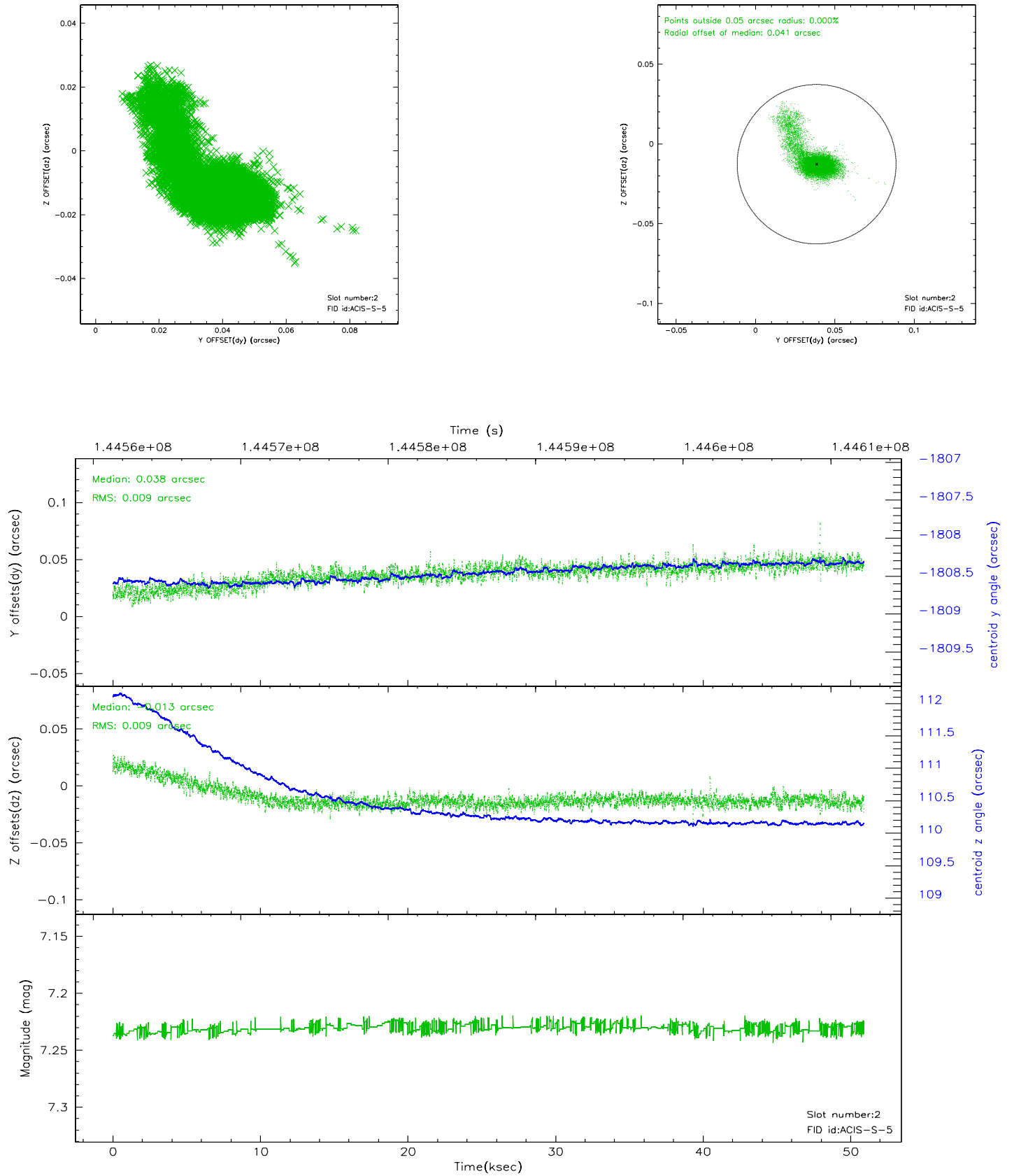
### 2.5.1 Slot 0



## 2.5.2 Slot 1

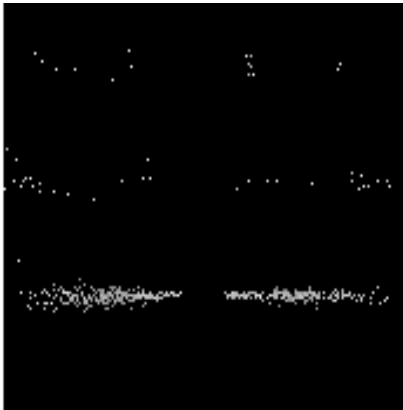


### 2.5.3 Slot 2

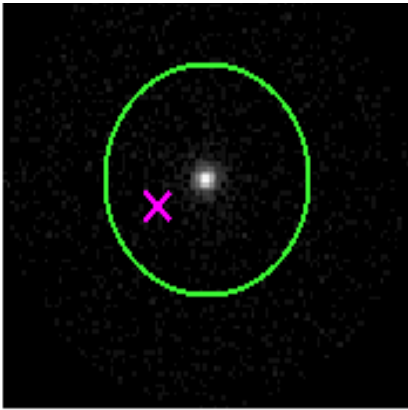


# 3 Gratings

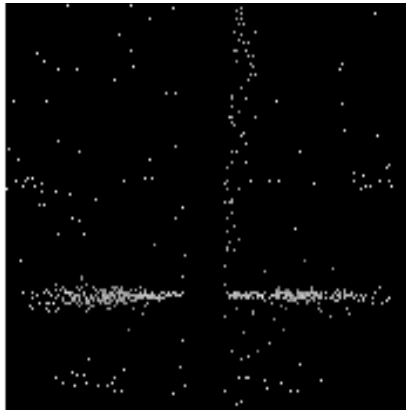
## 3.1 HEG Arm



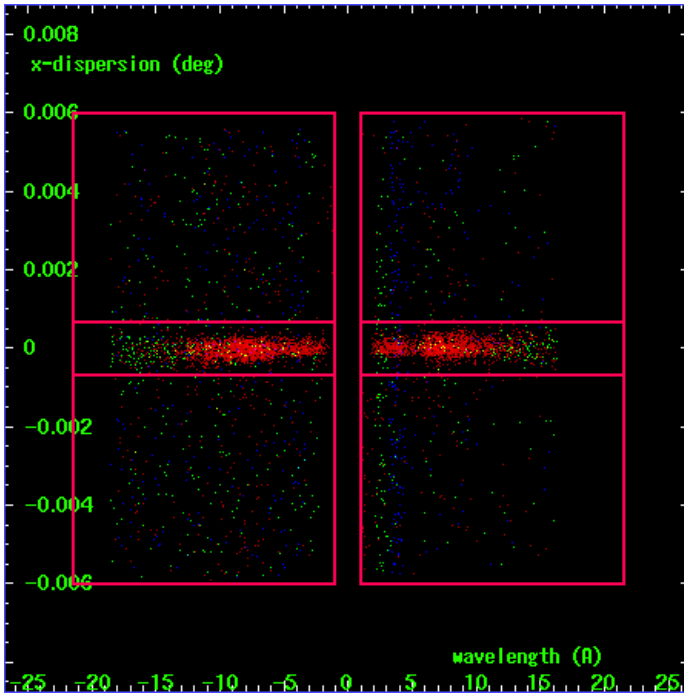
HEG Order Sort 123



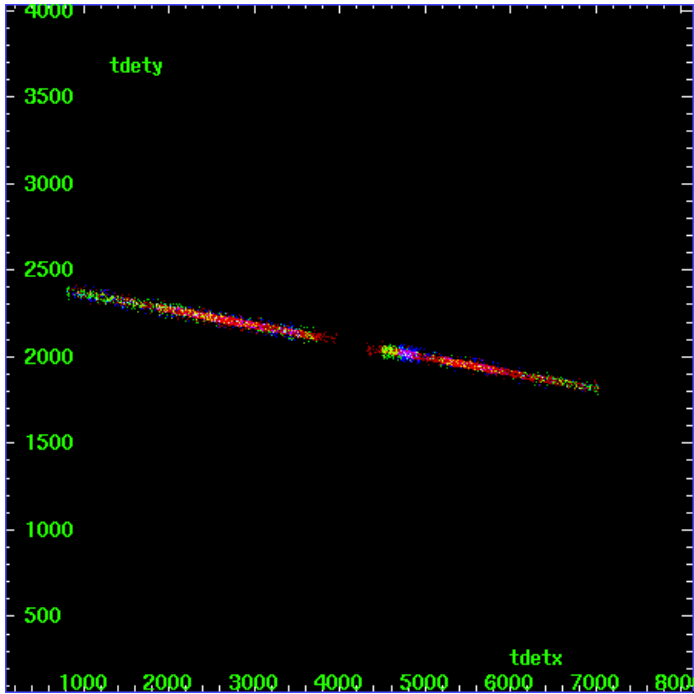
HEG Zero Order



HEG Order Sort ALL

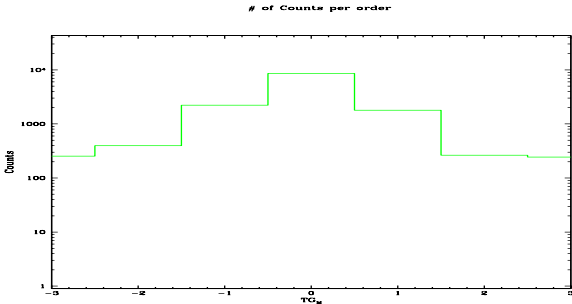


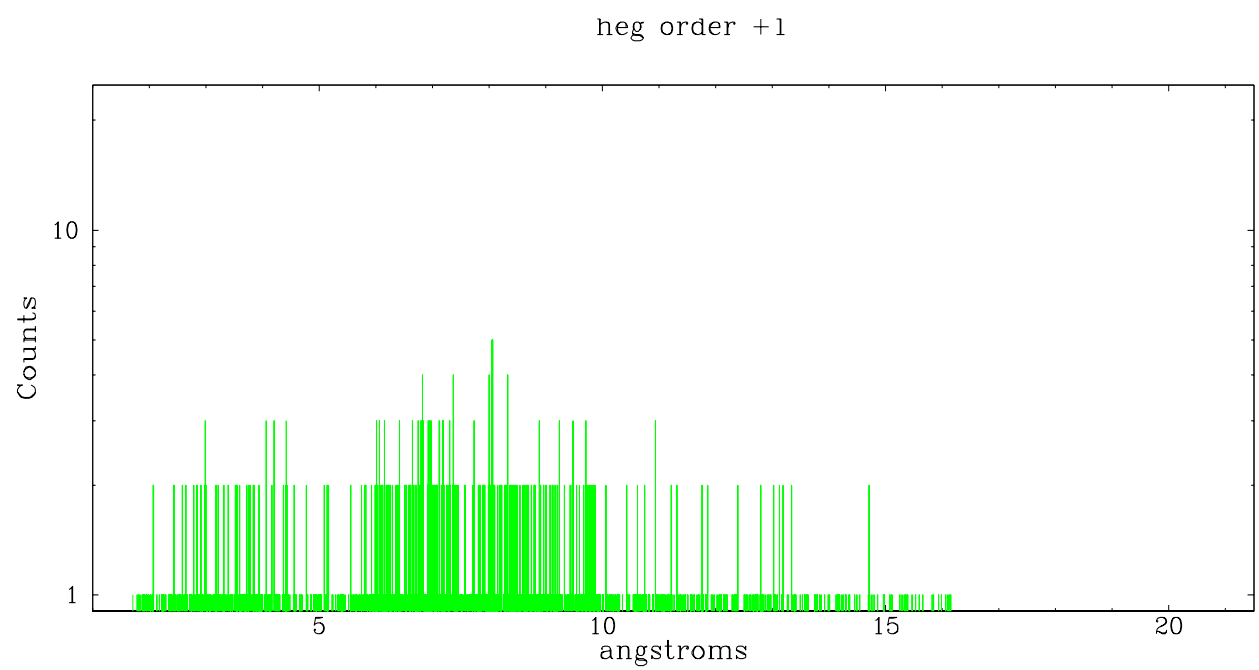
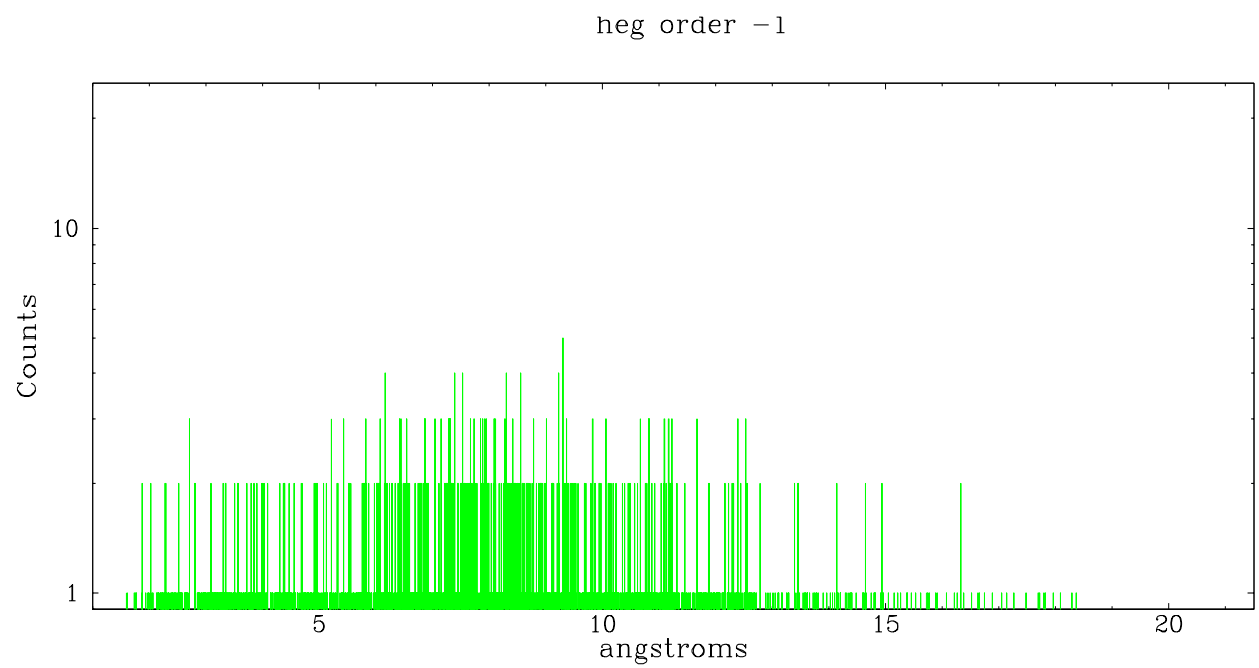
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	253	397	2219	8580	1787	264	244

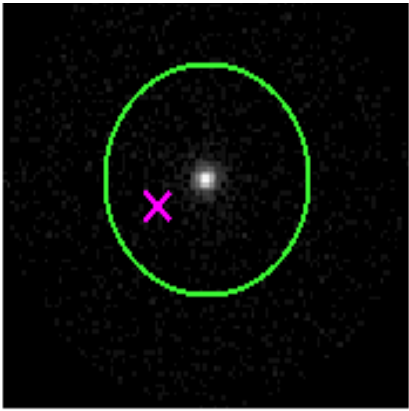




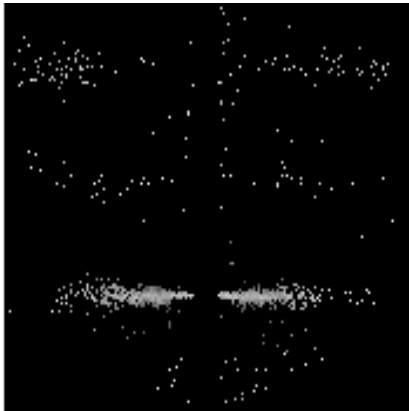
### 3.2 MEG Arm



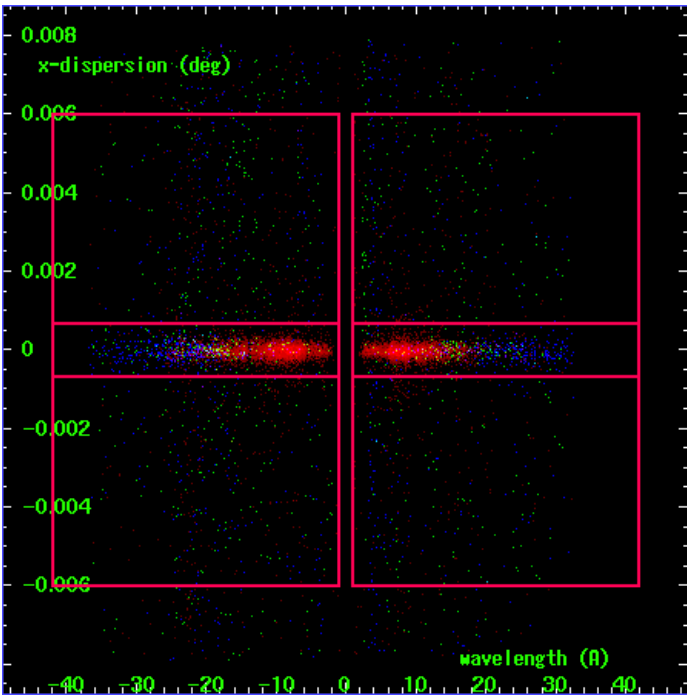
MEG Order Sort 123



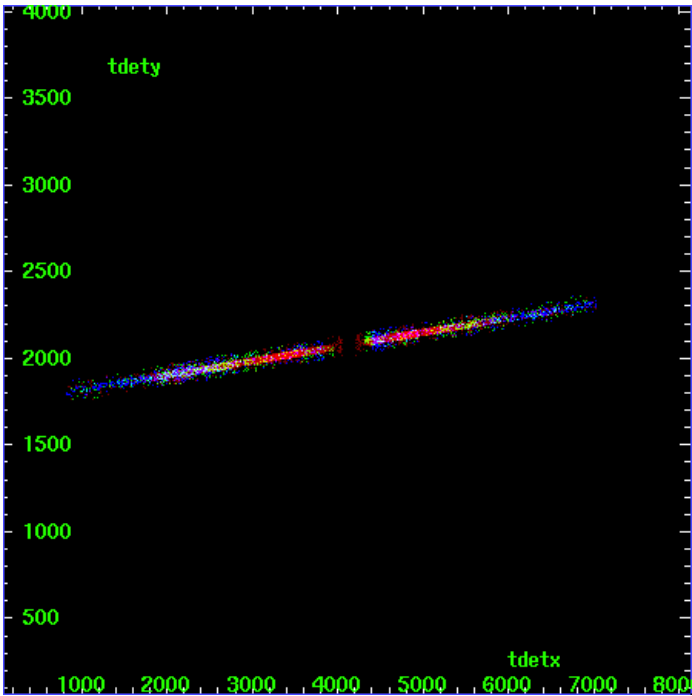
MEG Zero Order



MEG Order Sort ALL

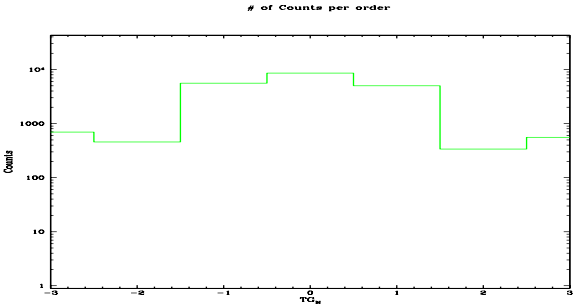


Spot Image MEG

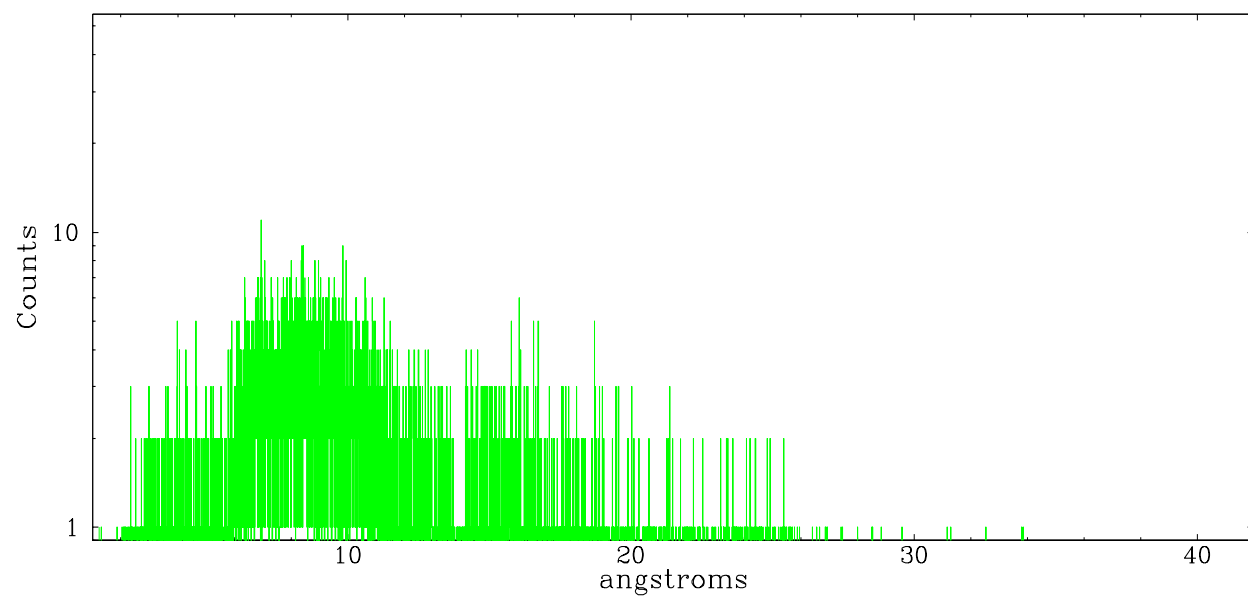


Full Detector MEG

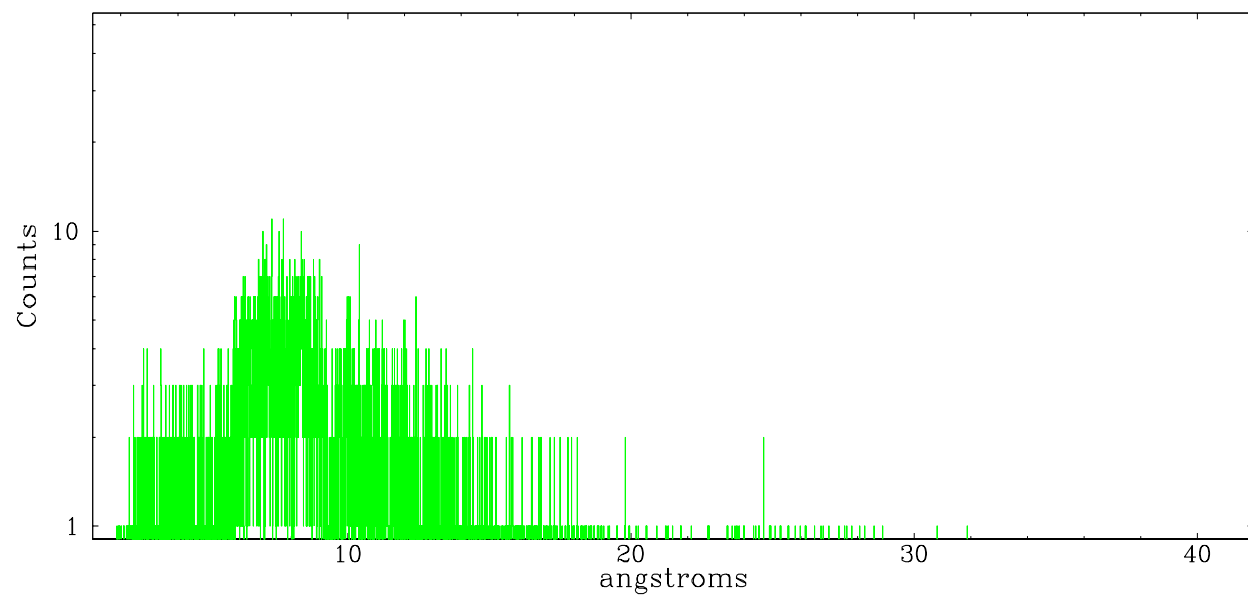
	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	697	457	5577	8580	4993	338	556



meg order -1



meg order +1





## A Summary

### A.1 Status

V&V Scientist	Joy Nichols
V&V Date (YYYY-MM-DD)	2006.10.16
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	50.907

### A.2 Comments